

Day 74 - 29/01/2023

Q. You have a grid with N rows and M columns. You have two types of tiles — one of dimensions 2×2 and the other of dimensions 1×1 . You want to cover the grid using these two types of tiles in such a way that: Each cell of the grid is covered by exactly one tile; and The number of 1×1 tiles used is minimised. Find the minimum number of 1×1 tiles you have to use to fill the grid.

Input Format

The first line of input will contain a single integer T, denoting the number of test cases.

Each test case consists of a single line containing two space-separated integers N,M.

Output Format

For each test case, print on a new line the minimum number of 1×1 tiles needed to fill the grid.

Sample Input

```
4
1 1
4 5
6 8
3 2
```

Sample Output

```
1
4
0
2
```

main.py

```
t=int(input())
while t!=0:
    m,n = map(int,input().split())
    if (m%2==0) and (n%2==0):
        print('0')
    elif (m%2==0) and (n%2==1):
        print(m)
    elif (m%2==1) and (n%2==0):
        print(n)
    else:
        print(m+n+-1)
    t-=1
```

output

```
PS E:\Panku\Python> e:; cd 'e:\Panku\Python';  
ode\extensions\ms-python.python-2022.20.2\pyth  
y'  
4  
1 1  
1  
4 5  
4  
6 8  
0  
3 2  
2  
PS E:\Panku\Python> █
```